



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,912	12/07/2005	Jacob Bruinink	NL030674US1	9560
24738 7590 04/30/2008 PHILIPS ELECTRONICS NORTH AMERICA CORPORATION INTELLECTUAL PROPERTY & STANDARDS 370 W. TRIMBLE ROAD MS 91/MG SAN JOSE, CA 95131				
EXAMINER NGUYEN, THANH NHAN P				
ART UNIT 2871		PAPER NUMBER		
MAIL DATE 04/30/2008		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/559,912

**Applicant(s)**

BRUININK ET AL.

**Examiner**

THANH-NHAN P. NGUYEN

**Art Unit**

2871

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

The drawings are objected to because (1) Normally, in transfective liquid crystal display device, a thickness of color filter in reflection region is thinner than a thickness of color filter in transmission region (since the light goes twice in reflection region, and only once in transmission region). However, new drawing (dated 1/4/08), figure 1 has the thickness of color filter in reflection region is thicker than the thickness of color filter in transmission region. Even though the drawing fully supports claim 4 limitation, "a color filter having a different thickness for the reflection portions and the transmission portions", Examiner is unsure if applicant really means to have the thickness of color filter in reflection region is thicker than the thickness of color filter in transmission region in the invention; (2) Assuming the new drawing is correct, it is still objected to because the arrow to show a cell gap in transmission region ( $d_T$ ) should have been indicated from a surface of '104' to a surface of '125' in transmission region (not that to the surface of '125' in reflection region as currently indicated – emphasis added).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

Art Unit: 2871

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-3 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohyama et al (US 2004/0105059).**

Ohyama et al disclose a transfective liquid crystal display device, comprising:

Claim 1:

- a front substrate (6) on a viewer side
- a rear substrate (2)
- a liquid crystalline cell (10) sandwiched between the front substrate and the rear substrate, said liquid crystalline cell having transmissive portions (through '4') for

Art Unit: 2871

selectively passing light generated by a backlight, and reflective portions (through '3') for selectively reflecting ambient light, said transmissive portions provided with a first cell gap and said reflective portions provided with a second cell

- an optical retarder (7 and/or 22) at the viewer side of said liquid crystalline cell, a thickness of said optical retarder being such as to compensate a difference between the first cell gap and the second cell gap

Claim 2:

- a front substrate (6) on a viewer side
- a rear substrate (2)
- a liquid crystalline cell (10) sandwiched between the front substrate and the rear substrate, said liquid crystalline cell having transmissive portions (through '4') for selectively passing light generated by a backlight, and reflective portions (through '3') for selectively reflecting ambient light, said transmissive portions provided with a first cell gap and said reflective portions provided with a second cell
- an optical retarder (7 and/or 22) at the viewer side of said liquid crystalline cell, a thickness of said optical retarder being such as to compensate a difference between the first cell gap and the second cell gap
- wherein the optical retarder is a patterned retarder extending substantially only over the reflective portions of the liquid crystalline cell

Claim 3:

- wherein the optical retarder is essentially a quarter-wave retarder for the reflective portions

Art Unit: 2871

Claim 7:

- wherein the first cell gap is between 1.5 and 2.5 times the second cell gap

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohyama et al in view of Tetsuo et al (EP 1109053).**

Claims 4 and 5:

Ohyama et al lack disclosure of a color filter having a different thickness for the reflective portions and the transmissive portions of the cell.

Tetsuo et al disclose (fig. 1A) a color filter (50) having a different thickness for the reflective portions and the transmissive portions of the cell for the benefit of ensuring a brightness of display in transmission and reflection regions to be maintained at a level suitable for actual application (par. 0018).

Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to have the different thickness for the reflective portions and the transmissive portions of the cell in transmissive liquid crystal display device for the benefit of ensuring a brightness of display in transmission and reflection regions to be maintained at a level suitable for actual application.

Further, with the combination of the features in references by Ohyama et al and Tetsuo et al, it would have been obvious to obtain the thickness of the optical retarder is such as to compensate both a difference between the first cell gap and the second cell gap, and said different thickness of said color filter; and wherein the color filter is arranged between the front substrate and the optical retarder.

Claim 6:

Rearranging parts such as wherein the optical retarder is arranged between the front substrate and the color filter would be obvious to one of ordinary skill in the art, [MPEP 2144.02.VI.C], and therefore does not patentably distinguish the invention.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Art Unit: 2871

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

-- April 28, 2008  
(Nancy) Thanh-Nhan P. Nguyen  
Examiner  
Art Unit 2871

/David Nelms/

Supervisory Patent Examiner, Art Unit 2871